

## OIB - P-3 Orion 03/22/17 Science Report

**Aircraft:**

[P-3 Orion](#) ([See full schedule](#))

**Date:**

Wednesday, March 22, 2017

**Mission:**

OIB

**Mission Location:**

Greenland

**Mission Summary:**

This is a new mission designed to improve bedrock mapping coverage across the Tracy and Heilprin Glacier catchments, and across the northern Greenland coast. The lines across northern Greenland are interlaced with other coast-parallel lines flown there by OIB in 2012. A pair of longitudinal lines down 79N Glacier were also flown, primarily for the purpose of acquiring new gravity data.

The weather forecast showed clear skies over most of northern Greenland so we opted to take this flight since it crosses a large area which can be more difficult to attain in comparison to missions over more limited areas. The weather on the flight was clear throughout with only a very thin haze layer at the end of 79N Glacier. All instruments performed well making for a successful flight with no loss of data.

**Data volumes**

ATM: T5: 29 Gb      T6: 161 Gb

FLIR: 15 Gb

Cambot: 47 Gb

KT19: 10 Mb

DMS: 140 Gb

Snow/Ku radar: 1.4 Tb

MCoRDS: 2.0 Tb

Accumulation radar: 1.5 Tb

data on: 1139

data off: 1852

**Submitted by:**

Nathan T. Kurtz on 03/22/17

**File:**

 [north\\_flux02.pdf](#)

**Related Flight Report:**

### P-3 Orion 03/22/17

**Flight Number:**

Science Flight #7 - North Flux 02

**Payload Configuration:**

OIB Arctic

**Nav Data Collected:**

No

**Total Flight Time:**

7.9 hours

**Submitted by:**

Janet Letchworth on 03/22/17

**Flight Segments:**

|                           |                                                        |                |                  |
|---------------------------|--------------------------------------------------------|----------------|------------------|
| <b>From:</b>              | BGTL                                                   | <b>To:</b>     | BGTL             |
| <b>Start:</b>             | 03/22/17 11:10 Z                                       | <b>Finish:</b> | 03/22/17 19:02 Z |
| <b>Flight Time:</b>       | 7.9 hours                                              |                |                  |
| <b>Log Number:</b>        | <a href="#">17P006</a>                                 | <b>PI:</b>     | Nathan Kurtz     |
| <b>Funding Source:</b>    | Bruce Tagg - NASA - SMD - ESD Airborne Science Program |                |                  |
| <b>Purpose of Flight:</b> | Science                                                |                |                  |

**Comments:** Science data gathering along North Flux 02 flight line.

**Flight Hour Summary:**

|                                       |               |
|---------------------------------------|---------------|
|                                       | <b>17P006</b> |
| <b>Flight Hours Approved in SOFRS</b> | 333.6         |
| <b>Total Used</b>                     | 307.1         |
| <b>Total Remaining</b>                | 26.5          |

**17P006 Flight Reports**

| <b>Date</b>                         | <b>Flt #</b>                                                               | <b>Purpose of Flight</b> | <b>Duration</b> | <b>Running Total</b> | <b>Hours Remaining</b> |
|-------------------------------------|----------------------------------------------------------------------------|--------------------------|-----------------|----------------------|------------------------|
| <a href="#">02/24/17</a>            | Airworthiness Test Flight                                                  | Check                    | 1               | 1                    | 332.6                  |
| <a href="#">02/26/17</a>            | Project Test Flight #1                                                     | Check                    | 4.9             | 5.9                  | 327.7                  |
| <a href="#">02/27/17</a>            | Project Test Flight #2                                                     | Check                    | 3               | 8.9                  | 324.7                  |
| <a href="#">03/07/17</a>            | Transit Flight                                                             | Transit                  | 8.2             | 17.1                 | 316.5                  |
| <a href="#">03/09/17</a>            | Science Flight #1 - North Pole Transect                                    | Science                  | 8               | 25.1                 | 308.5                  |
| <a href="#">03/10/17</a>            | Science Flight #2 - Laxon Line                                             | Science                  | 8.5             | 33.6                 | 300                    |
| <a href="#">03/11/17 - 03/12/17</a> | Science Flight #3 - Chukchi West Line                                      | Science                  | 8               | 41.6                 | 292                    |
| <a href="#">03/12/17 - 03/13/17</a> | Science Flight #4 - North Beaufort Loop Line                               | Science                  | 8.1             | 49.7                 | 283.9                  |
| <a href="#">03/14/17 - 03/15/17</a> | Science Flight #5 - East Beaufort Loop Line                                | Science                  | 8               | 57.7                 | 275.9                  |
| <a href="#">03/20/17</a>            | Science Flight #6 - Sea Ice South Basin Transect (to Thule)                | Science                  | 8.1             | 65.8                 | 267.8                  |
| <a href="#">03/22/17</a>            | Science Flight #7 - North Flux 02                                          | Science                  | 7.9             | 73.7                 | 259.9                  |
| <a href="#">03/23/17</a>            | Science Flight #8 - Zig Zag West Line                                      | Science                  | 7.9             | 81.6                 | 252                    |
| <a href="#">03/24/17</a>            | Science Flight #9 - CryoVEx Line                                           | Science                  | 5.8             | 87.4                 | 246.2                  |
| <a href="#">03/27/17</a>            | Science Flight #10 - Northwest Coastal A Line                              | Science                  | 7.4             | 94.8                 | 238.8                  |
| <a href="#">03/28/17</a>            | Science Flight #11 - North Central Cap 01 Line                             | Science                  | 7.6             | 102.4                | 231.2                  |
| <a href="#">03/29/17</a>            | Science Flight #12 - Ellesemere Island 01 Line                             | Science                  | 7.6             | 110                  | 223.6                  |
| <a href="#">03/30/17</a>            | Science Flight #13 - Ellesemere South Line                                 | Science                  | 7.9             | 117.9                | 215.7                  |
| <a href="#">03/31/17</a>            | Science Flight #14- Alexander-Petermann Line                               | Science                  | 6.5             | 124.4                | 209.2                  |
| <a href="#">04/03/17</a>            | Science Flight #15- Zachariae 79N Fram Straight and BGTL ENSB Transit      | Science                  | 7.4             | 131.8                | 201.8                  |
| <a href="#">04/05/17</a>            | Science Flight #16 - Svalbard North Line (High Priority)                   | Science                  | 7               | 138.8                | 194.8                  |
| <a href="#">04/06/17</a>            | Science Flight #17- Svalbard South Mission (High Priority)                 | Science                  | 8.5             | 147.3                | 186.3                  |
| <a href="#">04/07/17</a>            | Science Flight #18- Combined Zig Zag East Mission and Transit ENSB to BGTL | Science                  | 8.3             | 155.6                | 178                    |
| <a href="#">04/10/17</a>            | Science Flight #19- North Central Gap 3                                    | Science                  | 7.8             | 163.4                | 170.2                  |
| <a href="#">04/11/17</a>            | Science Flight #20- CryoVex 2 (High Priority)                              | Science                  | 7.8             | 171.2                | 162.4                  |
| <a href="#">04/12/17</a>            | Science Flight #21-Northwest Coastal C                                     | Science                  | 7.2             | 178.4                | 155.2                  |

|                          |                                                                  |         |     |       |       |
|--------------------------|------------------------------------------------------------------|---------|-----|-------|-------|
| <a href="#">04/13/17</a> | Science Flight #22-North Glaciers 02 Prime (High Priority)       | Science | 8.2 | 186.6 | 147   |
| <a href="#">04/14/17</a> | Science Flight #23-IceSat-2 North/CryoSat-2 SARIn                | Science | 7   | 193.6 | 140   |
| <a href="#">04/17/17</a> | Science Flight #24-Humboldt 01(High Priority)                    | Science | 7.8 | 201.4 | 132.2 |
| <a href="#">04/19/17</a> | Science Flight #25-Sea Ice - South Canada Basin (MediumPriority) | Science | 7.8 | 209.2 | 124.4 |
| <a href="#">04/20/17</a> | Transit Flight to Kangerlussuaq                                  | Transit | 3   | 212.2 | 121.4 |
| <a href="#">04/21/17</a> | Science Flight #26-Southeast Coastal                             | Science | 8   | 220.2 | 113.4 |
| <a href="#">04/22/17</a> | Science Flight #27-Helheim-Kangerd                               | Science | 7.8 | 228   | 105.6 |
| <a href="#">04/24/17</a> | Science Flight #28-Geikie 01 (High Priority)                     | Science | 8   | 236   | 97.6  |
| <a href="#">04/26/17</a> | Science Flight #29-Devon-Bylot (Medium Priority)                 | Science | 7.9 | 243.9 | 89.7  |
| <a href="#">04/28/17</a> | Science Flight #30-Penny 01 (Medium Priority)                    | Science | 6   | 249.9 | 83.7  |
| <a href="#">04/29/17</a> | Science Flight #31-Thomas - Jakobshavn 01                        | Science | 8.4 | 258.3 | 75.3  |
| <a href="#">05/01/17</a> | Science Flight #32-Thomas - Jakobshavn-Eqip-Store                | Science | 8.4 | 266.7 | 66.9  |
| <a href="#">05/02/17</a> | Science Flight #33-Thomas - ICESat-2 Central                     | Science | 7.9 | 274.6 | 59    |
| <a href="#">05/03/17</a> | Science Flight #34-Thomas - Southwest Coastal A                  | Science | 8.3 | 282.9 | 50.7  |
| <a href="#">05/05/17</a> | Science Flight #35-Helheim-Kangerdlugssuaq Gap B (High Priority) | Science | 8.2 | 291.1 | 42.5  |
| <a href="#">05/06/17</a> | Science Flight #36-Helheim-K-EGIG-Summit                         | Science | 8   | 299.1 | 34.5  |
| <a href="#">05/08/17</a> | Science Flight #37-Southeast Glaciers 01 (High Priority)         | Science | 8   | 307.1 | 26.5  |

*Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.*

**Source URL:** [https://airbornescience.nasa.gov/science\\_reports/OIB\\_-\\_P-3\\_Orion\\_03\\_22\\_17\\_Science\\_Report](https://airbornescience.nasa.gov/science_reports/OIB_-_P-3_Orion_03_22_17_Science_Report)